

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of)
Collins, et. al)
Assignee: Bank of America Corp.)
Serial Number: 09/611,320)
Filing Date: July 6, 2000)
For: Card with Increased)
Gripability)

Art Unit: 3722
Examiner: W. Fridie

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SUPPLEMENTAL BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following supplemental appeal brief is submitted pursuant to 37 C.F.R. § 1.193(b)(2)(ii), along with a Request for Reinstatement of Appeal Under 37 C.F.R. § 1.193(b)(2). The Notice of Appeal was filed on September 20, 2002 in the above-captioned application. A request for Oral Hearing was also filed on September 20, 2002. The initial Brief on Appeal was filed on November 19, 2002. The Examiner reopened prosecution by an Office Action dated July 2, 2003, in which the Examiner withdrew the finality of the previous rejection, and entered a new rejection of the pending claims.

It is not believed that extensions of time are required. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefore (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 50-0740 referencing docket number 016762.085-US01.

DC: 965580-1

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I. REAL PARTY IN INTEREST

Bank of America Corporation is the assignee of the above-captioned application, and is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to appellant, the appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 24-33 are the only claims pending. Claims 1-23 have been cancelled. All of claims 24-33 stand rejected, and all are the subject of the instant appeal. Claims 24-33 were twice rejected, once in Paper No. 7 dated August 28, 2001, and once in the Office Action dated May 21, 2002. This appeal was initially taken from the second rejection of May 21, 2002, in accordance with 37 C.F.R. § 1.191. In an Office Action dated July 2, 2003, the Examiner has sought to reopen prosecution by replacing the previous rejection with a new rejection of claims 24-33.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the May 21, 2002 rejection.

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V. SUMMARY OF INVENTION

The present invention is directed to a credit-card-sized card with a plurality of craters that form a tread disposed on a face of the card. Each crater comprises a lip and a center, with the lip being raised slightly above the face of the card and the center being indented slightly into the face of the card.

The present invention is particularly useful when a number of cards are held in sleeves within a wallet or carrying case. In such circumstances, the cards are often held very tightly within each sleeve, making it difficult remove and use a particular card. The use of craters disposed on the face of a card improves the gripability of that card, making it easier for a user to retrieve it from the wallet or carrying case.

FIGs. 4A-4C (*see Exhibit A*) show a number of embodiments of the present invention. In each of these embodiments, dimples 17 are arranged in various ways to form treads 16 on the face of a card 32. In certain embodiments, the dimples 17 are arranged in triangular or linear patterns, and are positioned near the edges of the card 32, to facilitate the removal of the card 32 from a wallet or carrying case. Of course, the particular arrangements shown in FIGs. 4A-4C are simply representative, and other arrangements should be apparent to one skilled in the art.

FIG. 5D (*see Exhibit A*) shows an embodiment of a crater structure for the dimples 17. In such an embodiment, the crater has a center that is indented slightly into the face of the card, and a lip that is raised slightly above the face of the card. Such craters disposed on the face of the card enhance the ability of a user to grip and remove the card from wallets, carrying cases, and the like.

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VI. ISSUES

In the rejection dated July 2, 2003, the Examiner cited PCT Publication WO 93/11510 ("the '510 reference") (Exhibit B) as anticipating, under 35 U.S.C. § 102(b), claim 24, the only pending independent claim. The Examiner asserts that the '510 reference discloses all of the subject matter set forth in claim 24, and anticipates or renders unpatentable the defendant claims. Thus, the issue presented is whether the present invention is anticipated by or unpatentable in view of the '510 reference.

VII. GROUPING OF CLAIMS

Appellant respectfully submits that all claims contain patentable subject matter, and that no claim should fail for anticipation under 35 U.S.C. § 102(b) or obviousness under 35 U.S.C. § 103. Claims 24-33 stand or fall together.

VIII. ARGUMENT

A. The '510 Reference Does Not Anticipate Claim 24.

The present invention is directed to solving the problems associated with gripping a card, such as a credit card, to remove it from a wallet, carrying case, and the like. The present invention is directed to a credit-card-sized card with a plurality of craters disposed on a face of the card. Each crater has a center indented slightly into the face of the card, and a lip raised slightly above the face of the card. This arrangement increases the gripability of the card.

The Examiner has rejected claims 24, 25, and 27 as anticipated under 35 U.S.C. § 102(b) by the '510 reference. The Examiner has further rejected claims 26, and 29-

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33 under 35 U.S.C. § 103 as being unpatentable over the '510 reference. The Examiner has further rejected claim 28 as unpatentable under 35 U.S.C. § 103 over the '510 reference and U.S. Patent No. 4,443,027 to McNeely *et al.* ("the McNeely patent"). However, as noted above, all claims stand or fall together, and thus this brief will address only the rejection of independent claim 24 based on the '510 reference.

In order for a reference to anticipate a claim, each and every element of the claim must be found in the prior art reference. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). At least because the '510 reference fails to teach a crater as claimed, appellant respectfully submits that the '510 reference does not anticipate claim 24.

The Examiner contends that the '510 reference anticipates claim 24 because it teaches "a tread (14) having a lip and crater; and a magnetic stripe." In general, the '510 reference, which was first made of record in this application in a Form PTO 1449 submitted October 23, 2000, discloses a card with a coded pattern of projections and/or recesses extending out of the plane of the card and substantially parallel to the normal direction of insertion of the card. *See Exhibit B at page 1, lines 23-26 and FIG. 1A.* The purpose of these projections and recesses is to provide security by ensuring that the card can only be used with readers that match the profile of the card. It appears that these cards would typically be used as "keys" for door locks in hotels and the like. *See Exhibit B at page 1, lines 17-18.* The Examiner specifically points to feature 14 of the '510 reference which includes a "peak and notch" extending along the length of the card as teaching a "crater." *See Exhibit B at page 2, lines 26-28 and FIGs. 1A-B.*

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Appellant respectfully contends that the Examiner's anticipation rejection is unfounded. Claim 24 requires a "plurality of craters . . . comprising a lip and a center, wherein the lip of each crater is raised slightly above [the face of the card] and the center of each crater is indented slightly into [the face of the card]." Thus, claim 24 does not require simply any structure that has a raised and indented portion, but rather a "crater" with a "lip" and a "center." The plain claim language and the common understanding of the term "crater" make clear that claim 24 requires a structure wherein an indented portion is surrounded by a "lip" portion, that is, a structure resembling a crater. This understanding of the term "crater" is further supported by the specification of the patent application, which states: "In yet another alternative embodiment . . . , the dimples are created in such a manner as to create individual craters in which the lip of the crater is raised slightly above the surface of the card, while the center of the crater is slightly below the surface of the card." See Exhibit A at Page 9 and FIGs. 4A-C, 5D. The '510 reference does not disclose any "crater" structure, but simply a card wherein a lengthwise ridge has both a projected portion and a recessed portion. Thus, because the '510 reference does not disclose each and every element of claim 24, appellant respectfully requests that the Examiner's anticipation rejection be reversed.

B. The '510 Reference Does Not Render Claim 24 Unpatentable Under 35 U.S.C. § 103.

While the Examiner did not apply a rejection to claim 24 under 35 U.S.C. § 103 based on the '510 reference, appellant respectfully submits that such a rejection would also be unfounded. As described above, the '510 reference is directed to a card with projections and/or recesses along the length of the card in order to ensure that the card can only be used with readers that match the profile of the card. Thus, unlike the claimed invention, the purpose of these projections/recesses has nothing to do with enhancing the

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gripability of the card. Moreover, if the '510 reference was modified to provide craters as claimed, it would not likely work for its intended purpose, because cards according to the '510 reference must have a consistent profile in order to be slid into a reader. Thus, there would be no suggestion or motivation to modify the '510 reference to provide the craters as claimed.

Similarly, there would be no motivation to combine the '510 reference with other art, such as the previously cited Rinderknecht patent (U.S. Patent No. 5,096,228; Exhibit C). The Rinderknecht patent generally discloses an identification card with a non-slip engaging means that is a notch or impression in the card. See Exhibit C at col. 4, lines 18-24. Once again, the purpose of the projections/recesses in the '510 reference is completely different from the purpose of the non-slip engaging means in Rinderknecht, and thus, there would be no suggestion or motivation to combine these two references.

Thus, appellant respectfully submits that a rejection of claim 24 under 35 U.S.C. § 103 would also be unfounded.

Finally, appellant understands that the Examiner has withdrawn the rejections made in the Office Action dated May 21, 2002, and specifically those related to the Rinderknecht patent and the Theken patent (U.S. Patent No. 5,556,092), and that the only issue presented in this appeal is that recited in Section VI (Issues), *supra*. Nevertheless, appellant maintains that those rejections were also unfounded as fully discussed in the initial Brief on Appeal filed on November 19, 2002, and hereby incorporate by reference Section VIII (Argument) of that brief.

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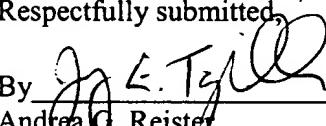
CONCLUSION

Independent claim 24 recites a card having a plurality of craters disposed on a face of the card, with each crater having a center indented slightly into the face of the card, and a lip raised slightly above the face of the card. The subject matter of independent claim 24 should be allowable over the '510 reference for at least the reasons discussed above in Sections A and B. In view of the above discussion, appellant respectfully urges that the rejection of claim 24-33 as unpatentable under 35 U.S.C. §§ 102(b) or 103 is improper. Reversal of the rejections in this appeal is respectfully requested.

Dated: September 30, 2003

Respectfully submitted,

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APPEAL BRIEF APPENDIX

24. A credit-card-sized card comprising: a first face, a second face, and a tread comprising a plurality of craters disposed on one of said first and second faces, each of said plurality of craters comprising: a lip and a center, and wherein the lip of each crater is raised slightly above said one face, and the center of each crater is indented slightly into said one face.
25. A card as in claim 24, further comprising a magnetic stripe.
26. A card as in claim 25, wherein the magnetic stripe has approximate dimensions of 12 to 16 mm in width and 82 mm in length, and is located on a back of the card approximately 5 mm from and parallel to a lengthwise edge of said card.
27. A card as in claim 26, wherein the tread avoids interference with the readability of information encoded on the magnetic stripe.
28. A card as in claim 24, further comprising a computer chip embedded in said card for the storage of digital information.
29. A card as in claim 24, wherein said tread is arranged near an edge of said card.
30. A card as in claim 24, wherein said plurality of craters are arranged in at least one triangular pattern.
31. A card as in claim 29, wherein said plurality of craters are arranged in at least one triangular pattern.
32. A card as in claim 24, wherein said tread is formed on a front of said card.
33. A card as in claim 24, wherein said tread is formed on a back of said card.

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part of U.S. Patent Application No. 09/095,752, filed December 30, 1997, the entirety of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

This invention relates to credit cards and other types of cards typically stored in a wallet or a carrying case. More particularly, this invention relates to increasing ability of a user to grip such a card, especially when the card includes a magnetic stripe or other means of storing encoded information.

DESCRIPTION OF THE RELEVANT ART

Cards of various kinds have become ubiquitous in modern society. People often carry a number of cards in their wallet or carrying case, including credit cards, ATM or bank cards, debit cards, "smart" cards, insurance cards, a driver's license, identification cards, telephone calling cards, transit cards, library cards, and card-entry hotel keys. An increasing number of consumer transactions require the use of these cards, for example as the form of payment or as identification necessary for another form of payment or admission. Quick and accurate access to individual cards is useful and desirable for both the consumer and the vendor of goods or services.

For the consumer, typically, credit cards and other types of cards are placed in a wallet or carrying case. To perform their function properly, card wallets and carrying cases are frequently equipped with sleeves or slots for holding one or more cards in an arrangement selected by the user. In order to hold cards snugly, these sleeves are often designed to provide

very little space for the card. Moreover, with a limited number of separate storage sleeves in their wallet or carrying case, many people find it necessary to store two, three or more cards in a single sleeve.

The result is that the cards are often held tightly within each sleeve, and several factors may contribute to making it difficult to remove a particular desired card from the sleeve. For example, if a consumer needs to remove a card sandwiched between two other cards in a single sleeve, there may be little surface with which to grip an individual card. In addition, the surface of many cards, such as credit cards and ATM cards, is smooth, making it difficult to grip. Consumers with large fingers, or elderly consumers or others with reduced dexterity, may thus encounter special difficulties in extricating a particular card from a wallet or carrying case. Difficulty in removing a single selected card increases the time necessary for the transaction, causes stored cards to be frequently reshuffled and potentially disorganized, and increases the likelihood that cards will be dropped or lost.

Vendors also have an interest in the ease of card removal. For a vendor, an important object of a transaction is to receive the correct card from the consumer, collect the necessary information - for example by reading the encoded information on the card's magnetic stripe - and return the card promptly. A consumer's difficulty in removing a card from a wallet or carrying case may increase transaction time, which may lead in turn to longer lines and increased waiting time for other consumers, or the need for additional personnel to serve customers in a prompt manner.

Finally, card issuers such as banks and credit card companies have an interest in a card that can be selected accurately by the consumer and read accurately by electronic readers. A

card issuer typically earns revenue when a consumer uses the issuer's card. If a card cannot be properly retrieved, the consumer may choose to use a different card, thus depriving the transaction to the issuer of the card initially sought by the consumer.

The need for quick and accurate access to a card is not diminished by the presence of a magnetic stripe on the card. Typically, such magnetic stripes are placed on the back side of the card, and usually contain encoded information that electronic readers can read to perform a function or confirm identification. For example, on credit and debit cards, the magnetic stripe on the back of the card is usually encoded with specific account information such as the credit card number, the cardholder's name, the card expiration date, and a personal identification code. Interference with the operation of the magnetic stripe could render the stripe useless or could otherwise cause the card to fail.

Proper functioning of the magnetic stripe is very important. If the electronic device for reading the encoded information cannot operate properly, the vendor must enter the information manually, using a keypad, telephone or other similar device. Manually entering the encoded information adds both indirect and direct costs to the vendor. For example, the additional time necessary to enter the information manually may increase needs for register operators and decrease the vendor's ability to attend to other customer service matters. In addition, vendors are frequently charged increased transaction fees by the card issuer for a manually entered transaction.

In order to ensure interoperability between the magnetic stripe readers and cards bearing magnetic stripes, the parameters defining the magnetic stripe are governed by the International Organization for Standardization (ISO) and the International Electrotechnical

Commission (IEC). The ISO/IEC 7811 provides standards for the physical characteristics of the magnetic stripe including the location of the stripe on the card, the surface profile of the stripe, and the height of the stripe above the card surface.

While less common today than magnetic stripe cards, smart cards are also gaining popularity with consumers. Smart cards contain an embedded computer chip containing digitally encoded information. The proper functioning of the embedded computer chip, like the proper functioning of the magnetic stripe, is essential for commercial transactions.

United States Patent No. 5,096,228 issued to Rinderknecht, entitled "Notched I.D. Card," suggests an early approach for improving the ability of a user to grip a card. Rinderknecht teaches the use of substantial notch or hole in the card. This solution, however, has a number of short-comings. Most importantly, a notch in the card as disclosed in Rinderknecht can interfere with the proper functioning of the magnetic stripe typically found on credit cards and other cards in use today and with the proper functioning of the computer chip in smart cards.

SUMMARY OF THE INVENTION

An object of the invention is to improve the ability of a user to grip - that is, to improve gripability - of credit-card-sized cards often stored in a wallet or carrying case. A further object of the invention is to increase the gripability of credit - card-sized cards that include a magnetic stripe or other means for encoding information without interfering with the intended operability of the magnetic stripe or other means of encoding information.

Another object of the invention is to use either raised or indented dimples, or a combination of raised and indented dimples, on the front side, on the back side, or both sides of the card, to increase the gripability of the card.

The present invention, as broadly described herein, provides a credit-card-sized card with a front, a back, edges, and a means for improving the gripability of the card. In one embodiment the means for improving gripability comprises dimples arranged in a variety of locations along the top of the front side of the card. In another embodiment, the dimples are arranged near the top of the front side of the card and also on the sides of the front of the card. In yet another embodiment, dimples are arranged on the front side of the card near all four edges. In each of these preferred embodiments, the numerous dimples may be grouped in close proximity, and arranged into treads or otherwise arranged to improve the gripability of the card.

Additional objects and advantages of the invention are set forth in part in the description which follows, and in part are obvious from the description, or may be learned by practice of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute part of the specification, illustrate preferred embodiments of the invention, and together with the description, serve to explain the principles of the invention.

FIG. 1 is an illustration of the prior art wherein a wallet or carrying case holds a number of credit-card-sized cards.

FIG. 2 is an illustration of the invention wherein each credit-card-sized card in a card wallet includes a means for improving the gripability of the card.

FIGs. 3A and 3B illustrate the parameters for the magnetic stripe on a credit-card-sized card; specifically, FIG. 3A and FIG. 3B show the location on the back of a card that is reserved for the magnetic stripe.

FIGs. 4A-4C illustrate three preferred embodiments of the present invention, having a means for improving the gripability of the card in various locations near the edge of the card.

FIG. 5A is a partial sectional view of a card taken through the means to improve gripability, where the means includes dimples indented from the surface of the card. FIG. 5B is a partial sectional view of a card taken through the means to improve gripability where the means includes dimples raised from the surface of the card. FIG. 5C is a partial sectional view of a card taken through the means to improve gripability where the means includes embossed dimples raised from the front surface of the card and indented into the back surface of the card. FIG. 5D is a partial sectional view of a card taken through the means to improve gripability where the means includes crater-type dimples, which are both raised and indented from the surface of the card.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Reference will now be made in detail to the present preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals indicate like elements throughout the several views.

FIG. 1 illustrates the state of the prior art. Typically, a user carries numerous credit-card-sized cards 12 in a wallet 10 or carrying case (not depicted). The wallet 10 or carrying case often contains numerous sleeves 11 in which a consumer can place one or more cards 12. Because it is often necessary or desirable to carry a large number of cards 12, the cards 12 may often be tightly packed within the wallet 10 or carrying case. The wallet 10 or carrying case often has a limited number of sleeves 11, making it frequently necessary to place more than

one card 12 in a single sleeve 11. This frequently packs the cards 12 tightly within the wallet 10 or carrying case.

Because the cards 12 may be packed tightly, it is often difficult to remove a specific card. Typically, it is necessary for the user to wedge her forefinger behind the card 12 while applying pressure with her thumb 14 to the front of the card 12. This wedging may cause unnecessary bending of the card which can interfere with the operation of the card 12 in a reader or other device. If the card 12 has a smooth plastic surface, for example, or if the user is wearing gloves or if her hands are slippery as other examples, withdrawing the card 12 from the wallet 10 may be even more difficult.

FIG 2. depicts a preferred embodiment of the present invention, including a credit-card-sized card 32, including a front 20, a back (not depicted), top edge 22, side edges 23, bottom edge 24, and a means for improving the gripability of the card. While the specific embodiments illustrated are cards having magnetic stripes, e.g. credit cards, debit cards or bank cards, this is by way of example, and the invention is not limited to these types of cards.

In the preferred embodiment depicted in FIG. 2, the credit-card-sized card 32 has a length of approximately 86 mm, a width of approximately 54 mm, and a thickness of approximately 1 mm., in conformance with industry standards. In other embodiments, credit-card-sized card 32 has dimensions depending on the nature and use of the card, as known in the art.

In a preferred embodiment depicted in FIG. 2, the means for increasing the gripability of the card is a tread 16 made up of a plurality of individual dimples 17 arranged near top edge 22 of the card 32. The removal of a single card 32 from wallet merely requires the user

to slide her thumb 34 along the face of the card 32 across the tread 16 in a direction toward the top edge 22 of card 32. This motion causes the card 32 to slide out of the sleeve 31 due to the increased friction between the thumb 34 and the card 32. As depicted, the forefinger 35 may no longer be needed for the removal of the card 32 from the sleeve 31. In an embodiment (not depicted) in which the tread 16 is located on the back of the card 32, the thumb may no longer be needed for the removal of the card 32 from the sleeve 31. In an embodiment (not depicted) in which treads 16 are located on both the front 20 and the back of the card 32, the thumb and forefinger can be used in combination.

In a preferred embodiment depicted in FIG. 2, the card 32 includes a plurality of treads 16, each located on the front 20 of the card 32 near the top edge 22. In this embodiment, the treads 16 are exposed while the card 32 is stored in sleeve 31. In another embodiment (not depicted), the treads can be located near the side edges 23 of the card; this would be useful for wallets 30 or carrying cases that store cards in an alternative orientation such that the side edge of the card is exposed stored in the wallet or carrying case. Alternate locations of the treads may depend on the expected storage arrangements of individual cards, and should be apparent to one of skill in the art from this description or from practice of the invention.

As depicted in FIG. 2, dimples 17 can be located anywhere on the card 32 but should not interfere with the readability of any information on the magnetic stripe or otherwise on the card. In a preferred embodiment, depicted in FIG. 2, the dimples 17 are located outside the area occupied by the magnetic stripe. As provided in ISO/IEC 7811, for example, the boundaries reserved for the magnetic stripe depend on how encoded information is stored on the stripe. FIG. 3A depicts a preferred location of a magnetic stripe for cards with two tracks of

information. FIG. 3B, with a slightly wider magnetic stripe, shows a preferred location of the magnetic stripe 30 for cards with three tracks of information.

FIGs. 4A-4C depict three alternate preferred embodiments of the present invention. In each, a number of dimples 17 are arranged collectively to form a plurality of treads 16. In the preferred embodiment depicted in FIG. 4A, the dimples 17 are arranged to form treads 16 either in a triangular pattern or in a line. The dimples 17, however, can also be arranged in any number of patterns. As depicted in FIGs. 4A-4C, the treads 16 are located near an edge of the card 32, and in each preferred embodiment depicted in FIGs. 4A-4C, a tread 16 is located near the top edge 22 of the card 32. Other arrangements of dimples 17 forming treads 16 should be apparent to one of skill in the art from this description or from practice; of the invention, again depending on the intended or experienced use of the card.

FIGs. 5A-5C show sectional views of preferred embodiments of a credit-card-sized card 32 of the present invention taken along the line X-X of FIG. 4A. In FIG. 5A, the dimples 17 are indented from the front 20 of the card; in FIG. 5B the dimples 17 are raised from the front 20 of the card. In the raised dimple embodiment depicted in FIG. 5B, the height of each dimple 17 should be selected so as to not interfere with the proper operation of magnetic stripe electronic readers or other devices that require the card to be swiped by or through the reader or device. In an alternative preferred embodiment depicted in FIG. 5C, the dimples 17 are embossed such that they are raised on the front 20 of the card and indented on the back 21 of the card. In yet another alternative embodiment depicted in FIG. 5D, the dimples are created in such a manner as to create individual craters in which the lip of the crater is raised slightly above the surface of the card, while the center of the crater is slightly below the surface of the card.

Similarly, the height of dimples 17 should not exceed the height of any other embossed or raised characters or icons on the face of the card 32, so that the dimples 17 do not interfere with devices designed to imprint the raised characters or icons on receipts or other paper or similar documents. Depending on the intended or expected use of the credit-card-sized card of the present invention, the height of any dimples or other means for improving the gripability above the surface of the card should be apparent to one of skill in the art, from this description or from practice of the invention so that such dimples do not interfere with readers, imprinters or other devices designed to be used with the card.

It will be apparent to those skilled in the art that various modifications may be made to this invention and that other embodiments of the invention may be made based on this disclosure. To the extent that such other embodiments are created, it is intended that they shall fall within the protection provided by the appended claims and their equivalents.

We claim:

1. A credit-card-sized card comprising a front, a back, and a tread comprising a plurality of raised dimples for improving the gripability of said card.
2. A card as in claim 1, further comprising a magnetic stripe.
3. A card as in claim 2, wherein the magnetic stripe has approximate dimensions of 12 to 16 mm in width and 82 mm in length, and is located on the back of the card approximately 5 mm from and parallel to a lengthwise edge of said card.
4. A card as in claim 3, wherein the tread avoids interference with the readability of information encoded on the magnetic stripe.
5. A card as in claim 1, further comprising a computer chip embedded in said card for the storage of digital information.
6. A card as in claim 1, wherein said tread is formed on the front of said card.
7. A card as in claim 6, wherein said tread is arranged near an edge of said card.
8. A card as in claim 1, wherein said tread comprises dimples arranged in at least one triangular pattern.
9. A card as in claim 7, wherein said tread comprises dimples arranged in at least one triangular pattern.
10. A card as in claim 1, wherein said tread is formed on the back of said card.
11. A card as in claim 10, wherein said tread is arranged near an edge of said card.

12. A card as in claim 11, wherein said tread comprises dimples arranged in at least one triangular pattern.

13. A card as in claim 10, wherein said tread comprises dimples arranged in at least one triangular pattern.

ABSTRACT

The invention disclosed herein represents a means for increasing the gripability of a credit-card-sized card. Specifically, dimples raised from, indented in, or embossed in a credit-card-sized card are arranged to form a tread on the front or back of a card. This tread allows fingers to more easily grip a credit-card-sized card for ease of handling or removal from a wallet or carrying case. Moreover, the means disclosed does not interfere with various means such as magnetic stripes commonly used to store encoded information on credit-card-sized cards.

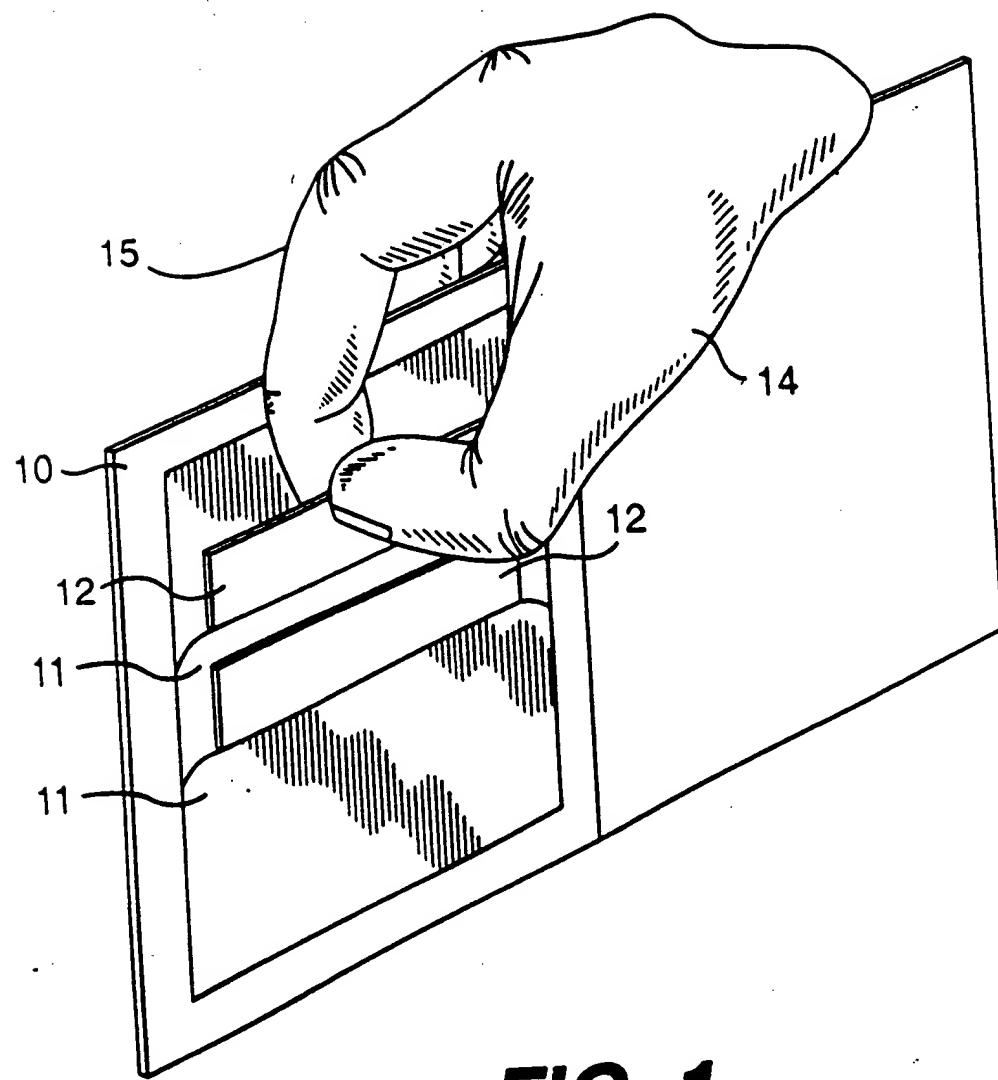
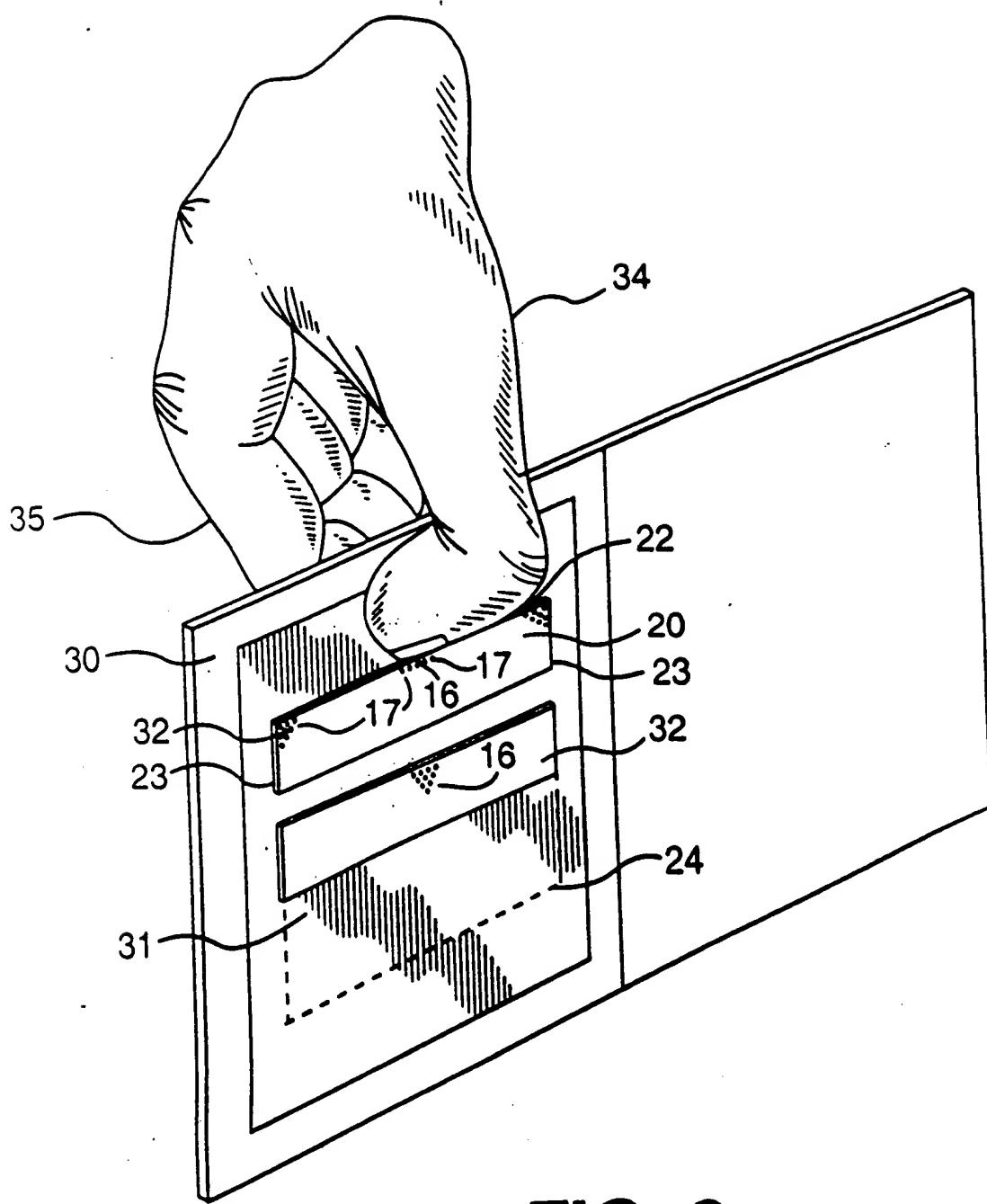


FIG. 1

**FIG. 2**

DIMENSIONS IN MILLIMETERS
(DEMENSINS IN INCHES IN PARENTHESSES)

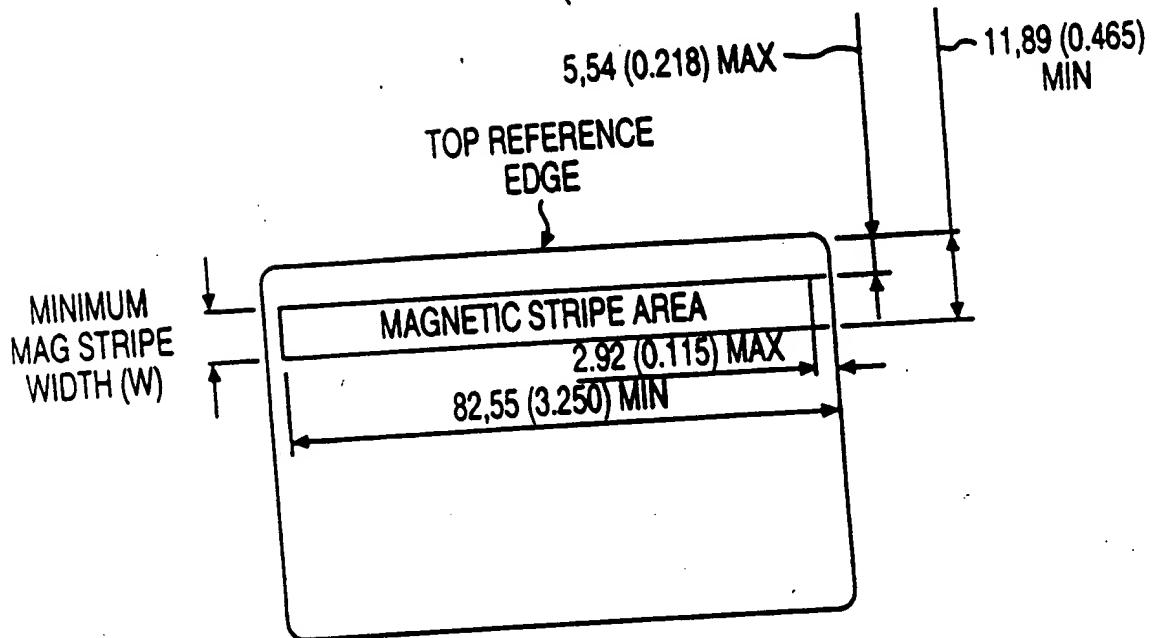


FIG. 3A

DIMENSIONS IN MILLIMETERS
(DEMENSINS IN INCHES IN PARENTHESSES)

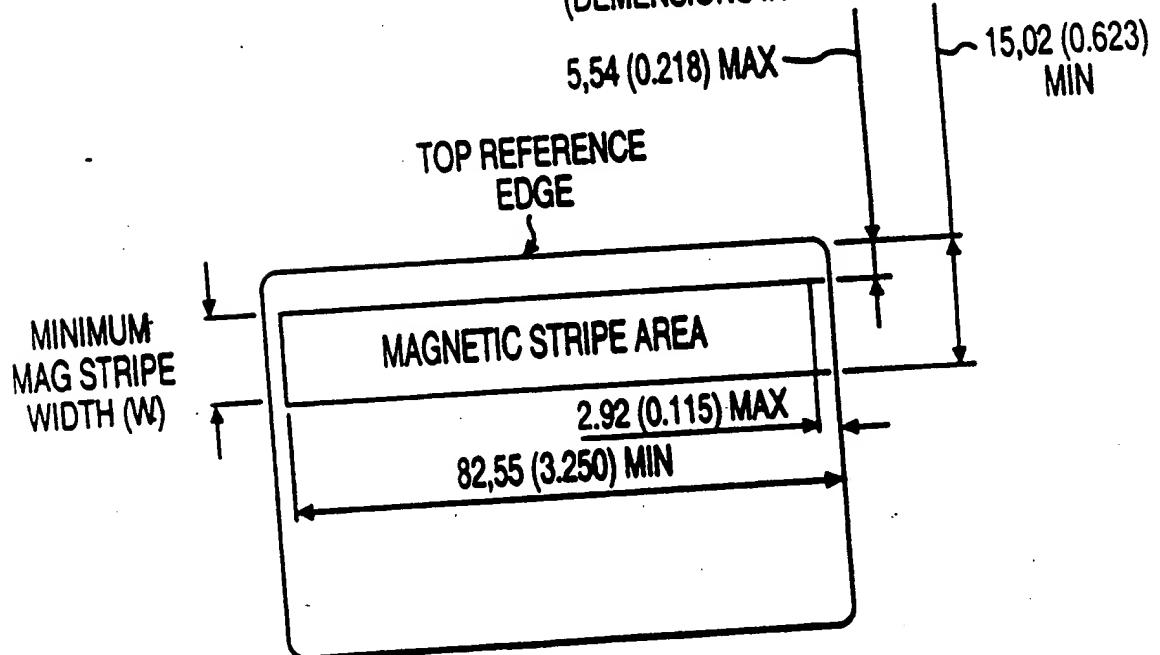


FIG. 3B

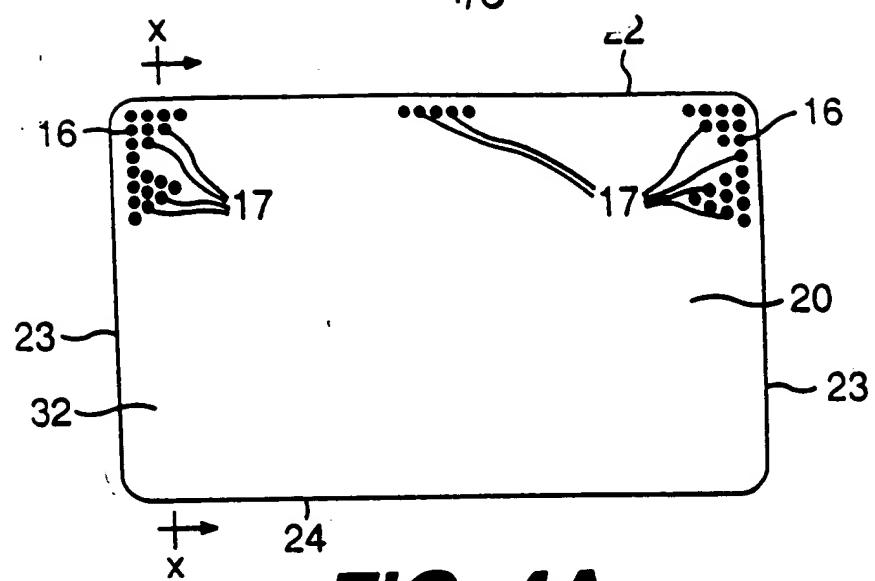


FIG. 4A

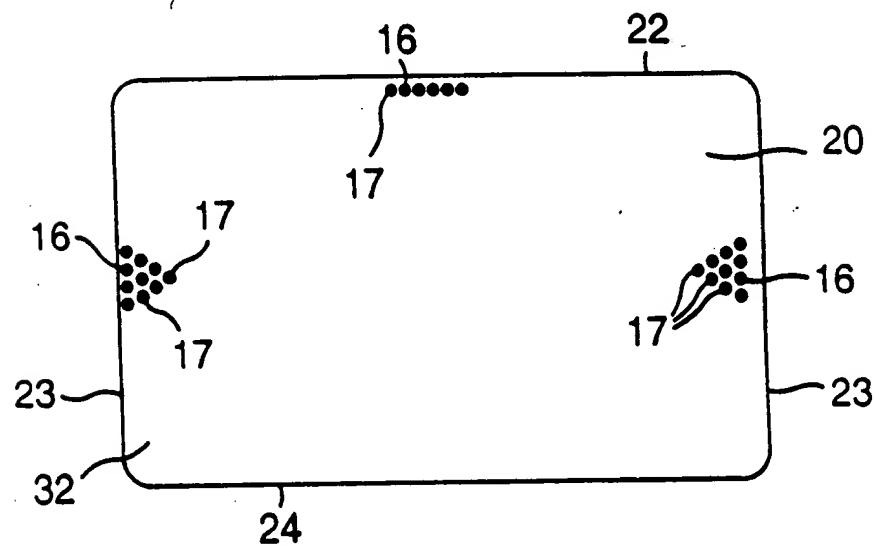


FIG. 4B

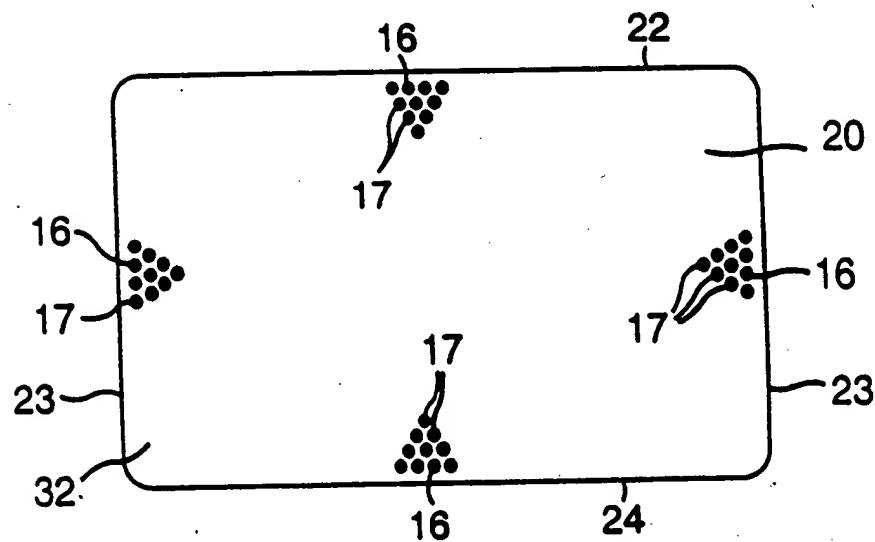


FIG. 4C

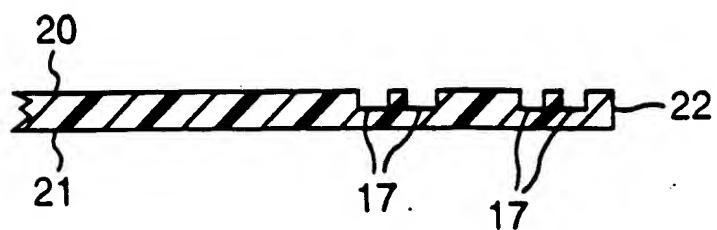


FIG. 5A

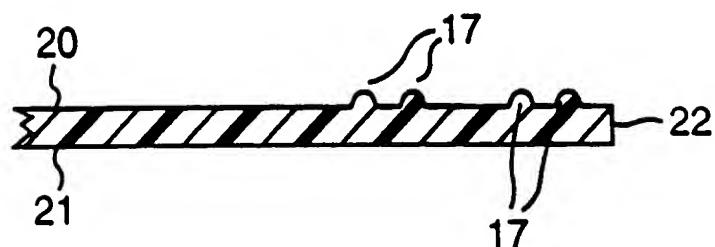


FIG. 5B

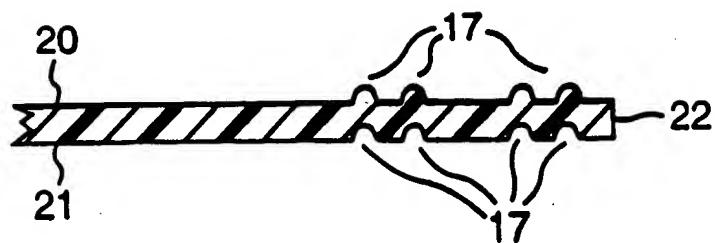


FIG. 5C

6/6

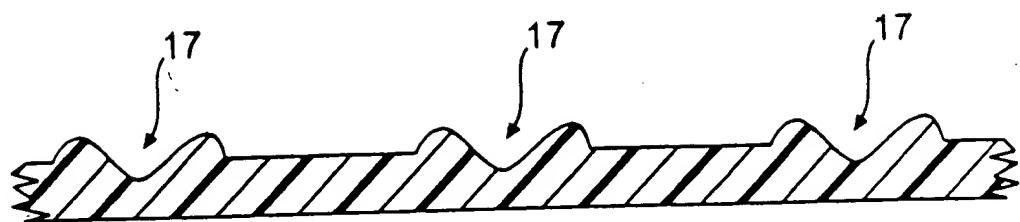


FIG. 5D

Art Unit:

DETAILED ACTION

1. The finality of the last office action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24,25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by WO ('510).

WO ('510) discloses all of the subject matter as set forth in the claims and is identical to the invention as broadly recited. Some of the claimed elements clearly disclosed by the reference are: a tread (14) having a lip and crater; and a magnetic stripe.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit:

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 26 and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO ('510).

In regard to claims 26, it would have been an obvious matter of design choice to form the stripe in the claimed dimensions, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CPA 1955).

In regard to claims 29, 32 and 33, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the treads in the claimed locations, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

In regard to claims 30 and 31, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the craters in the claimed arrangement, since it has been

Art Unit:

held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

3. Claims 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO ('510) as applied to claims 26 and 29-33 above, and further in view of McNeely.

WO ('510) discloses the claimed invention except for an embedded computer chip.

McNeely teaches that it is well known in the art to use an embedded computer chip in a card assembly. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide WO ('510) with an embedded computer chip in the manner as taught by McNeely in order to increase the information storage capacity of the assembly.

Response to Arguments

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

In order to reduce pendency and avoid potential delays, Group 3700 is encouraging FAXing of responses to Office actions directly into the Group...*Official- (703)872-9302...After Final-(703) 872 9303*. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 3700 will be promptly forward to the examiner.

Art Unit:

Any inquiries concerning issues other than the substantive content of this and previous communications, such as missing references or filed papers not acknowledged, should be directed to the Customer Service Representative, Tech Center 3700, (703) 306-5648.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center receptionist whose telephone number is (703) 308-1148. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. Fridie, Jr. whose telephone number is (703) 308-1866

wf

June 30, 2003



WILLMON FRIDIE, JR.
PRIMARY EXAMINER



A. L. WELLINGTON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

United States Patent [19]

[11]

4,443,027

McNeely et al.

[45]

Apr. 17, 1984

[54] MULTIPLE COMPANY CREDIT CARD SYSTEM

[76] Inventors: Maurice G. McNeely, 250 Ohua Ave., Apt. 8C, Honolulu, Hi. 96815; Rodney A. Gomes, 1760 Hookupa St., Pearl City, Hi. 96782

[21] Appl. No.: 287,980

[22] Filed: Jul. 29, 1981

[51] Int. Cl.³ B42D 15/00

[52] U.S. Cl. 283/83; 283/904; 283/77; 283/98; 235/487; 235/492; 235/494; 40/625

[58] Field of Search 40/2.2, 625; 283/7, 283/83; 235/487, 492

[56] References Cited

U.S. PATENT DOCUMENTS

3,376,661	4/1968	Hulett 40/2.2
3,399,473	9/1968	Jaffe 40/2.2
3,533,176	10/1970	Weitzberg et al. 40/2.2
3,732,640	5/1973	Changnon 40/2.2

3,876,865	4/1975	Bliss 40/2.2
3,967,400	7/1976	Otto 40/2.2
4,017,834	4/1977	Cuttill 283/83
4,079,883	3/1978	Calder 40/2.2
4,222,516	9/1980	Badet et al. 235/492

Primary Examiner—Gene Mancene

Assistant Examiner—Wenceslao J. Contreras

Attorney, Agent, or Firm—James Creighton Wray

[57] ABSTRACT

One or more miniaturized credit indicators are affixed to a wallet-size primary plate bearing the name, signature, picture and account number of an authorized user. Each of the indicators represent a different credit account. The indicators are locked into recessed spaces on the face of the plate. Magnetic tapes, microprocessor chips or integrated circuits imbedded in the indicators and plate provide identifying information. Means are provided for reading and decoding information stored in the plate or indicator.

5 Claims, 3 Drawing Figures

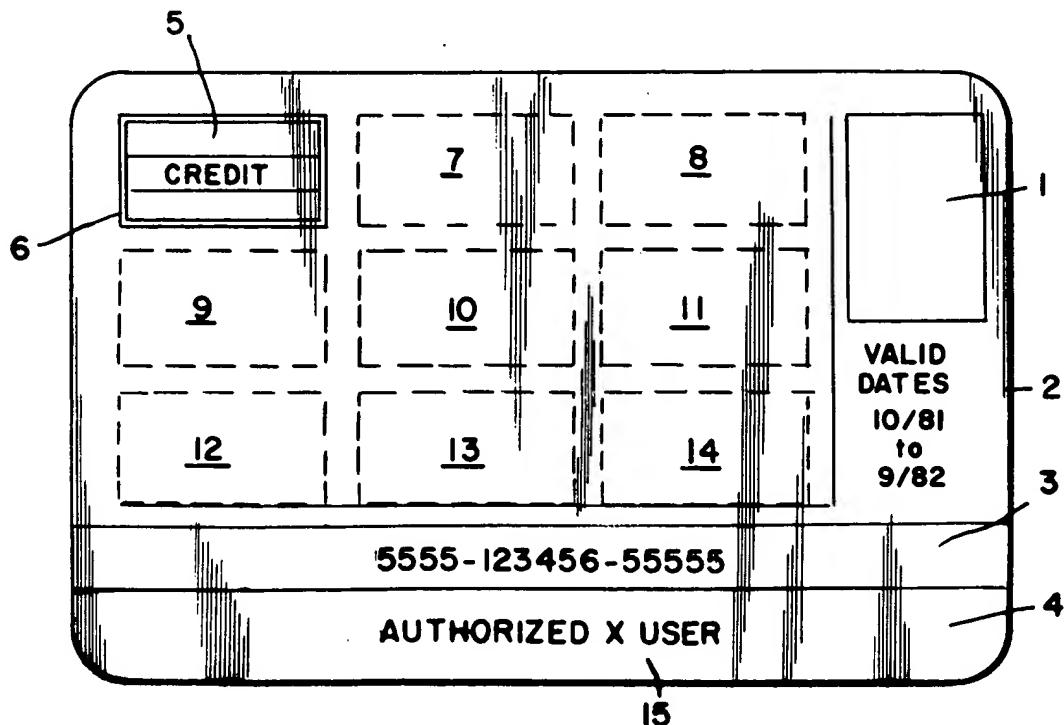


FIG. 1

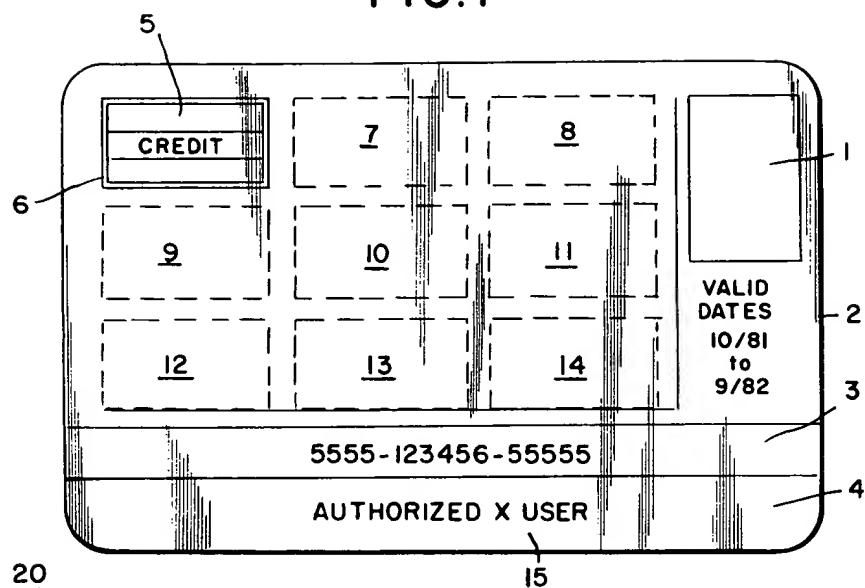


FIG. 2

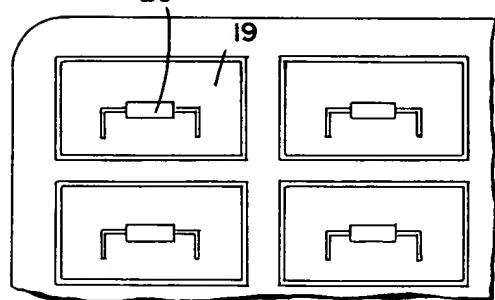
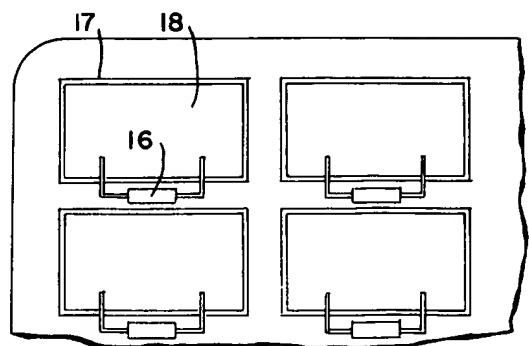


FIG. 3



MULTIPLE COMPANY CREDIT CARD SYSTEM**BACKGROUND OF THE INVENTION**

Today's typical consumer relies on credit cards issued by banks, oil companies and other credit extenders to transact much of his daily business. Although such credit cards offer quick, reliable means of establishing a consumer's worthiness to purchase goods and services on credit, they have drawbacks.

A single credit card is light, compact and convenient. However, five, six, seven or more are bulky, clumsy and inconvenient for storage in a pocket, wallet or purse.

If a single credit card is lost or stolen, its authorized user is required only to contact one issuer to cancel or suspend the authorization of future credit extensions in his name. However, if five, six, seven or more cards are lost or stolen at the same time, their authorized user is required to contact each and every issuer individually to cancel or suspend the authorization of future credit extensions in his name. This process can be both costly and time-consuming.

A multiple-company credit-card system, based on the issuance of a primary plate to each participating credit-card user, would provide all of the benefits of an assortment of individual credit cards while eliminating the above-named drawbacks.

DESCRIPTION OF THE PRIOR ART

The following prior art known to the inventor is considered most relevant:

U.S. Pat. No. 3,921,318 which shows a medical history card the size of a standard credit card containing a portion with one or more connected microfilm frames of a self-proofed medical history. The card frame has an opaque area printed with visible indicia such as the identification of the person and critical medical data taken from the medical history pages. A magnetic tape is added for storing machine-readable information.

U.S. Pat. No. 3,512,130 which shows a master credit card for a multiplicity of companies. It is a continuation-in-part of U.S. Pat. No. 3,376,661 described below. The credit card in this invention has an encoded account number thereon for use in receiving credit from a plurality of different creditors. The invention includes means for comparing the encoded account number on the card with a plurality of account numbers and signaling the presence of the encoded account number among the plurality of account numbers.

U.S. Pat. No. 3,376,661 which shows a multiple company credit card and system for use in receiving credit from a plurality of different creditors. The cards contain the card holder's identity on one portion and on the other portion a predetermined pattern of creditor indicia, with each indicia identifying a different creditor and occupying a predetermined position in the pattern. The system also includes read-out means arranged to receive a card and to sense and display a predetermined one of the indicia.

The following U.S. Pat. Nos. disclose cards having chips or integrated circuits embedded therein: 3,816,711; 3,868,057; 3,873,975; 3,872,438; 3,876,865; 3,906,460; 4,001,550; 4,004,133; 4,013,894; 4,105,156; 4,222,516 and 4,224,666.

Additional prior art U.S. Pat. Nos. known to the inventor, but considered less relevant are: 4,066,873; 3,876,484; 3,792,542; 3,363,346 and 2,225,297.

SUMMARY OF THE INVENTION

This invention relates to providing a multiple-company credit-card system which permits the issuance of a primary plate to each participating credit-card user and eliminates the need of each participating user to own an assortment of credit cards.

This invention also provides a multiple-company credit card system which tailors the credit authorizations represented on the primary plate to the credit preferences, requirements and qualifications of each individual, participating credit-card user.

This invention further provides a multiple-company credit card system which has the flexibility to permit each participating credit-card user to add or subtract credit authorizations without replacing the personally-tailored primary plate.

This invention still further provides a multiple-company credit card system which enables each participating credit-card user to cancel or suspend the authorization of credit extensions based on credit cards represented on his primary plate by writing a single letter or placing a single telephone call to the primary plate issuer.

This invention further relates to a multiple-company credit card system which distributes to merchants and service providers who honor primary plates, means to enlarge, decipher, decode or interpret credit-card information reduced in size, encoded or conveyed by esoteric markings on each primary plate.

Objects of the invention are, therefore, to provide an improved credit card system and to provide a credit card system which eliminates the need to carry an assortment of wallet-size cards or plates.

These and other and further objects and features of the invention are apparent in the disclosure which includes the above and below specification and claims and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a frontal view of a primary plate with one miniature credit card inserted and with room for eight more credit cards, in accordance with an embodiment of the invention.

FIG. 2 is a fragmentary frontal view of a primary plate in accordance with an alternative embodiment of the invention.

FIG. 3 is a fragmentary frontal view of a primary plate in accordance with yet another embodiment of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

This invention is particularly concerned with providing a multiple-company credit-card system which enables participating credit-card users to eliminate the necessity of owning or carrying a bulky, inconvenient stack of credit-cards issued by individual banks, oil companies, department stores or other credit extenders.

In the system, each participating credit-card user is issued a primary or master plate of a size suitable for wallet storage. On it are displayed means of identifying the authorized user and means of determining banks, oil companies and/or other credit sources which have extended the user credit.

The drawing shows a frontal view of a preferred embodiment of the primary plate on which the multiple-company credit-card system is based.

specific credit-source identification and user identification means, e.g., a magnifying viewer or a computer terminal, such means to be used operatively with said primary plate.

Although the primary plate used in the system may be of any suitable size, it is preferably small enough to fit inside a wallet, pocket or purse. Typically, the card will be from 1.75 to 2.5 inches on one side and from 3 to 3.75 inches on the other.

Although the plate is preferably made of a plastic or plastic-like material, metal or any other suitable, thin material can be used in its place.

Although some embodiments require that certain modifications, i.e., additions or deletions of credit-cards represented on a primary plate, be made by the primary-plate issuer, other embodiments can be modified by the primary-plate user itself.

Without trading one's plate or requesting a replacement, the user can request, either from the primary-plate issuer or the issuers of individual credit cards, appropriate miniaturized credit-cards or credit-card facsimiles which the user can self-attach, insert or apply to the primary plate. In this manner, one can personally tailor a card to fit one's own temporary or permanent credit needs and qualifications.

In those embodiments which require the user to exchange a plate or request a replacement to add or delete credit cards represented on it, the user still reserves the privilege of tailoring the plate to fit the user's own credit needs because only those credit extension authorizations which the user requests and for which the user qualifies are represented on the user's primary plate.

Although, in a preferred embodiment, only one authorized user can make use of a primary plate, in other embodiments, auxiliary plates are issued to family members, employees or other individuals for whom the primary-plate user agrees to assume credit liability. Such auxiliary plates may or may not display a photograph or photographs of the authorized auxiliary plate user or users.

All embodiments have in common means to facilitate simultaneous cancellation or temporary suspension of all future credit extensions based on credit cards represented on the primary plate. Thus, a primary-plate user can be absolved of credit obligations resulting from future, unauthorized credit transactions based on cards represented on the user's plate by making a single telephone call or mailing a single letter to the primary-plate issuer to request cancellation or temporary suspension of credit authorizations. The primary-plate issuer then, in turn, assumes the responsibility for advising all credit-card issuers represented on the plate that it has been lost or stolen.

While the invention has been described with reference to specific embodiments, the exact nature and scope of the invention is defined in the following claims.

What is claimed is:

1. A multiple-company credit card system comprising

(a) a primary identification plate containing legible means for identifying an authorized user, and coded means for identifying said user, plural solid, slightly recessed spaces on a front of the primary plate for affixation of a plurality of miniature credit indicators, and plural primary plate microcircuit chip coding means embedded in the primary plate adjacent the recessed spaces, the primary plate chip coding means having interconnection means extending into the recessed spaces for connecting with credit indicators mounted in the recessed spaces, and

(b) at least one miniature credit indicator having an upper side comprising a miniature reproduction of a credit card issued to an authorized user by a credit-granting establishment, each indicator having an underside with an adhesive means for attaching the indicator to one of the slightly recessed spaces in the primary plate, and a microcircuit chip embedded in each miniature credit indicator, the credit indicator microcircuit chips being adapted to interconnect with microcircuit chips embedded in the primary plate, each of the miniature indicators being provided with a microcircuit chip which is different from a microcircuit chip in any other miniature indicator.

2. The system of claim 1 further comprising means for a business establishment to decode any coded information contained in the primary plate, and in circuit chip coding means in any miniature credit indicators affixed thereto, and means to read the legible information contained thereon, all said means used operatively with said primary plate.

3. The system of claims 1 or 2 wherein the primary plate provides for the affixation of from 6 to 18 miniature credit indicators with separate chip coding means.

4. The system of claim 3 wherein the primary plate contains the name and a photograph of the authorized user; legible dates defining the plate's term of validity; a legible account number assigned to the user; and a blank space suitable for affixation of the authorized user's signature.

5. A multiple-company credit card system comprising a primary identification plate containing legible means for identifying an authorized user, a coded means for identifying the user and having recesses set into a front face of the primary plate for affixation of a plurality of miniature credit cards, a plurality of chips embedded in the primary plate adjacent the recesses and having means for connecting each of the chips to each of the recesses, a plurality of miniature credit cards having adhesive means on undersides thereof for affixation of the miniature credit cards in the recesses, and each of the miniature credit cards having a chip which is different from any chip in another miniature credit card and means for severally connecting the credit card chips with the chips embedded in the primary plate to provide information signals.

* * * * *



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5 :	A1	(11) International Publication Number:	WO 93/11510
G06K 19/063, B42D 15/10 E05B 35/00		(43) International Publication Date:	10 June 1993 (10.06.93)

(21) International Application Number: PCT/AU92/00655

(22) International Filing Date: 4 December 1992 (04.12.92)

(30) Priority data:
PK 9854 4 December 1991 (04.12.91) AU(71) Applicant (*for all designated States except US*): CARDLOK PTY. LTD. [AU/AU]; 9 Victoria Street, Gerringong, NSW 2535 (AU).

(72) Inventor; and

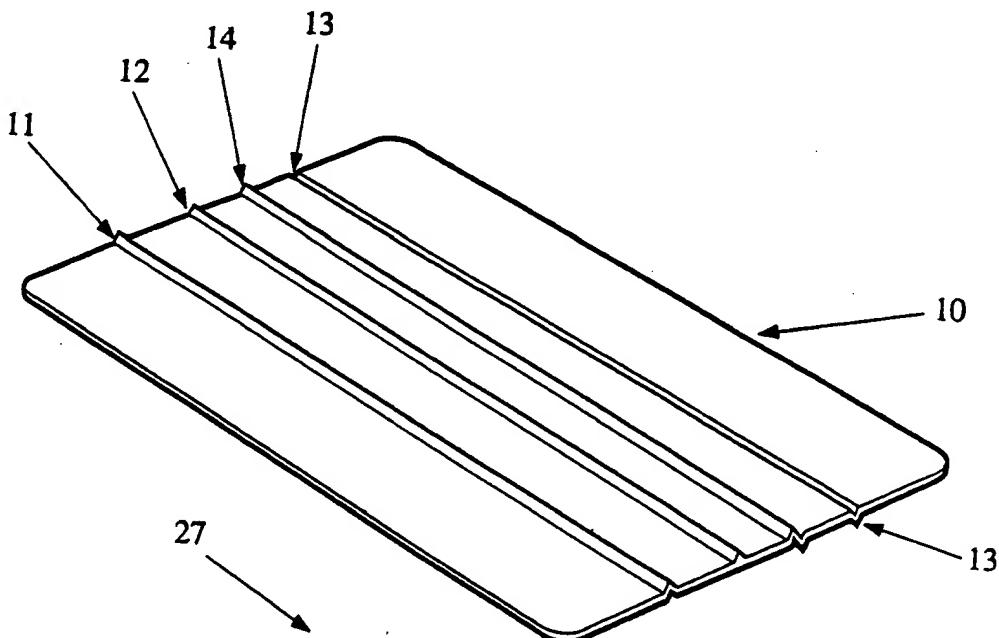
(75) Inventor/Applicant (*for US only*) : PREDDEY, Brian, Francis [AU/AU]; 9 Victoria Street, Gerringong, NSW 2535 (AU).

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(81) Designated States: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, UA, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG).

Published
With international search report.

(54) Title: PROFILED CARD SECURITY SYSTEM



(57) Abstract

The invention relates to a card (10), such as an access or credit card, with a coded pattern of projections and/or recesses (13, 14) extending out of the plane of the card (10) which can be inserted into a lock. Any suitable receipt means, such as a shaped insertion plate (20) may be used to preclude initial entry of any card (10) not having the necessary profile, the card otherwise operating normally.

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PROFILED CARD SECURITY SYSTEM**Technical Field**

The present invention relates to access cards, particularly plastic cards, such as credit cards, automatic bank machine cards, and similar cards used as access devices.

Background Art

Various card-based systems are in widespread use as door locks, car park access controls, automatic teller machine and funds transfer devices, and the like. In many of these applications, standard sized plastic cards incorporating magnetic stripes are used. Mechanical card based systems have also been proposed in co-pending PCT/AU92/00577 by the present applicant, which utilise similar plastic cards.

In all of these applications, there are situations where a "restricted card" system is desirable, so that unique cards may be issued to a particular organisation. The options within the coding system (eg for magnetic swipe cards) are limited, and it is difficult to reserve whole coding sequences for single users. Examples of the application of such systems include hotels, defence facilities and building access.

It is an object of the present invention to provide a system for card restriction which is inexpensive, effective and does not interfere unduly with the basic coding features of the cards.

Summary of the Invention

According to one aspect, the present invention comprises an improved card security system, comprising a card including a coded pattern of projections and/or recesses extending out of the plane of the card and substantially parallel to the normal direction of insertion of the card;

and receipt means for said card adapted to receive only cards having a specific cross-section including said coded pattern of projections and/or recesses, in the direction of normal insertion.

According to another aspect, the present invention provides a card for accessing a secure system, comprising a first coded magnetic and /or mechanical sequence, and a second coded pattern of projections and/or

SUBSTITUTE SHEET

recesses extending out of the plane of the card and substantially parallel to the normal direction of insertion of the card.

Preferably the card includes a programmable magnetic strip of conventional type. Most preferably the card includes further a pattern of slots 5 extending through the plane of the card.

Brief Description of Drawings

The invention will now be described in more detail with reference to the accompanying figures, in which:

Figure 1A illustrates a perspective view of the inventive card 10 according to a first embodiment;

Figure 1B illustrates a section across the card of figure 1A;

Figure 2 illustrates a perspective view of a second embodiment of the invention; and

Figure 3 illustrates a receipt means for the card .

15 Detailed Description

Referring to figure 1, an illustrative card 10 includes a variety of surface features parallel to the normal insertion direction 20 for the lock or other receiving device. These features may be a "corrugation", and extend to both sides of the card as in features 11, 13 and 14, or be merely on one side, as in 20 12. The projections may be of any or various shapes, including square, hemispherical, triangular - further, all may be the same shape or same combination of shapes for a particular card. It will be appreciated that the projections must be formed in such a way as to retain sufficient mechanical strength - for instance, very deep recesses with no corresponding projection on 25 the other side are undesirable.

• An advantageous type of projection is shown as feature 14, and involves a peak and notch in each direction of approximately one half the card thickness. This allows maximum detectable travel for the receipt means while minimising the thickness of the card. It is also very difficult for a would-be thief to 30 duplicate.

In the reading device, any suitable receipt means - for instance, a suitably shaped insertion plate as shown in figure 3 - may be used to preclude

entry of any card not having the necessary profile, or to not actuate unless grooves or peaks are present. Any suitable mechanical device may be used. For example, a biased cam may be actuated by appropriate projections at some position corresponding to the insertion of a suitable card.

5 It will be appreciated that the cards may be produced by any suitable means from any suitable material - although for reasons of practicality a plastics material is preferred. Cards according to the invention may be produced by extrusion, injection moulding, or other suitable techniques. Magnetic stripes, recesses or projections for mechanical card locks, security devices such as 10 holograms, and embossed card holder details may be included in cards according to the present invention. The projecting features may be confined to one or more zones to facilitate this. Figure 2 illustrates a card with all three types of coding - magnetic, slots and a profile.

Any suitable technique may be used to cut slots or emboss card 15 holder details as is common practice, with care taken to not damage the card due to its non-planar surface.

One particular point which must be noted is that the cross-sectional feature must be arranged so as to not unduly weaken the structural integrity of the card.

20 It will be appreciated that variations and additions are possible within the spirit and scope of the invention.

CLAIMS

1. An improved card security system, comprising a card including a coded pattern of projections and/or recesses extending out of the plane of the card and substantially parallel to the normal direction of insertion of the card; and receipt means for said card adapted to receive only cards having a specific cross-section, including said coded pattern of projections and/or recesses, in the direction of normal insertion.
2. A system according to claim 1, wherein the card further includes a coded magnetic portion, and the receipt means is adapted to read the magnetic portion.
3. A card for accessing a secure system, comprising a first coded magnetic and/or mechanical sequence, and a second coded pattern of projections and/or recesses extending out of the plane of the card and substantially parallel to the normal direction of insertion of the card.
4. A card according to claim 3, including a programmable magnetic strip of conventional type.
5. A card according to claim 3 or claim 4, including a pattern of slots extending through the plane of the card.

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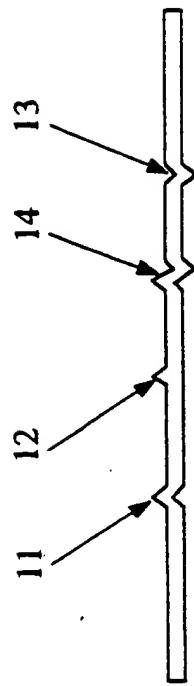
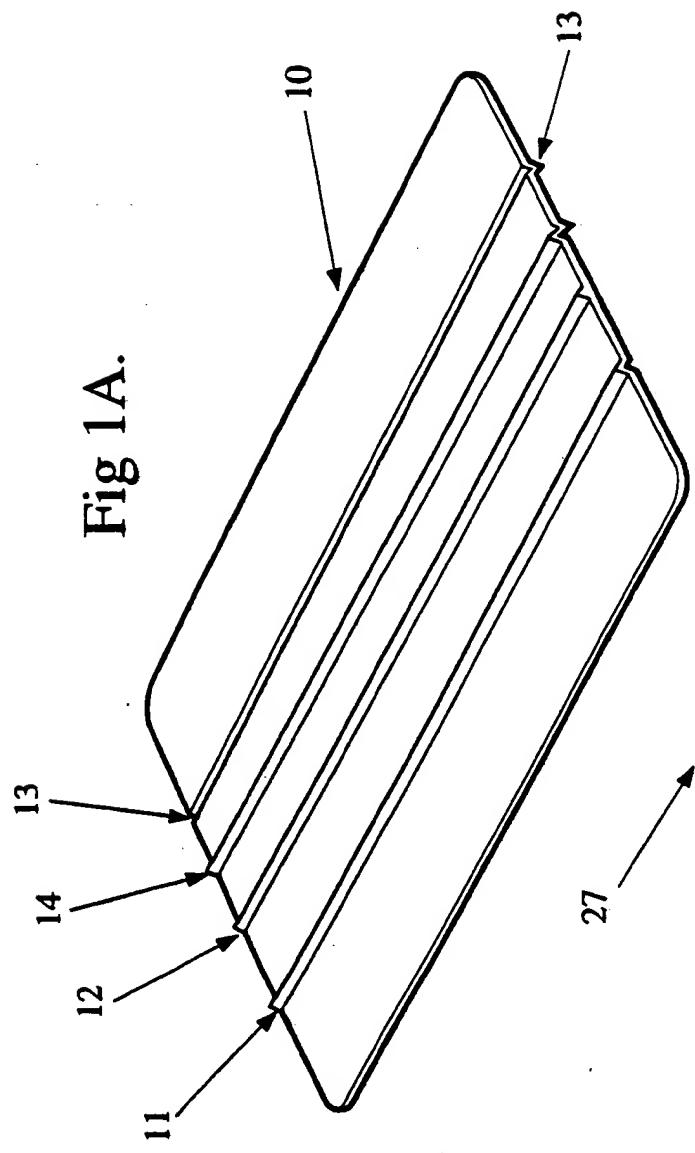


Fig 1B.

Fig 2.

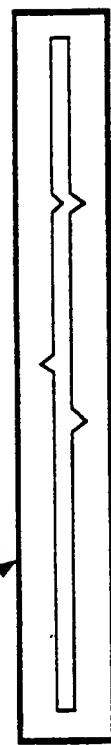
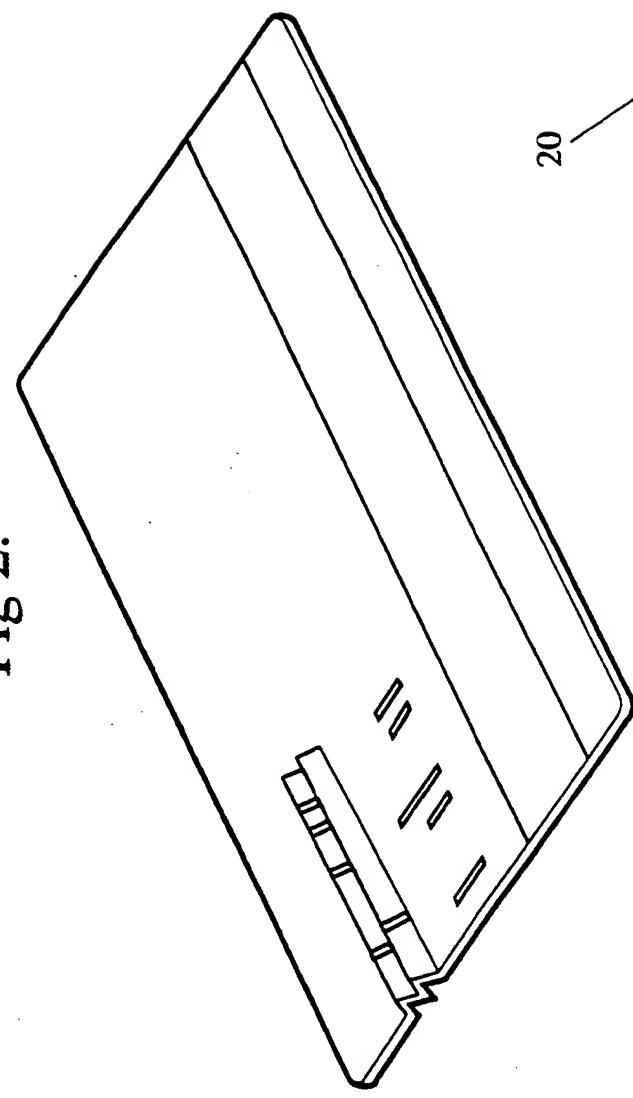


Fig 3.

A. CLASSIFICATION OF SUBJECT MATTER
Int. CL. G06K 19/063, B42D 15/10, E05B 35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC G06K 19/06, 19/063, 19/18, B42D 15/10, 121:00, E05B 35/00, 19/16

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
AU : IPC as above

Electronic data base consulted during the international search (name of data base, and where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
A	US,A, 4914281 (BENTON et al) 3 April 1990 (03.04.90) See column 2, lines 3 to 17.	1-6
A	US,A, 4856310 (PARENTI) 15 August 1989 (15.08.89) See the whole document.	2-5
A	US,A, 4628195 (BAUS) 9 December 1986 (09.12.86) See column 2, lines 21 to 58.	2-5
A	US,A, 4338805 (NYGREN) 13 July 1982 (13.07.82) See the abstract	1-6

Further documents are listed
in the continuation of Box C.

See patent family annex.

- * Special categories of cited documents :
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"X" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Y" document member of the same patent family

"&"

Date of the actual completion of the international search
1 March 1993 (01.03.93)

Date of mailing of the international search report

3 MARCH 1993 (03.03.93)

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate of the relevant passages	Relevant to Claim No.
A	US.A, 4297569 (FLIES) 27 October 1981 (27.10.81) See column 3, line 18 to column 4, line 55.	1-6
A	US.A, 3822396 (WATASE et al) 2 July 1974 (02.07.74) See the whole document.	2-5

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member				
US	4856310	AT ES	74992 2032032	DE FR	3870020 2614642	EP JP	290330 63289184	
US	4338805	DE WO	2965865 8000860	EP	20512	SE	421020	
US	4297569	AT EP	7824 21499	CA JP	1141841 56052278	DE	3068100	
US	3822396	BE GB	795909 1376271	DE JP	2309055 49007099	FR	2184272	



US005096228A

United States Patent [19]

Rinderknecht

[11] Patent Number: 5,096,228
[45] Date of Patent: Mar. 17, 1992

[54] NOTCHED I.D. CARD

[76] Inventor: Lester W. Rinderknecht, Star Rt. 1,
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[21] Appl. No.: 469,774

[22] Filed: Jan. 10, 1990

[51] Int. Cl. 5 B42D 15/00

[52] U.S. Cl. 283/75; 283/900;
283/904

[58] Field of Search 283/75, 900, 904

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Commerce.

Primary Examiner—Douglas D. Watts

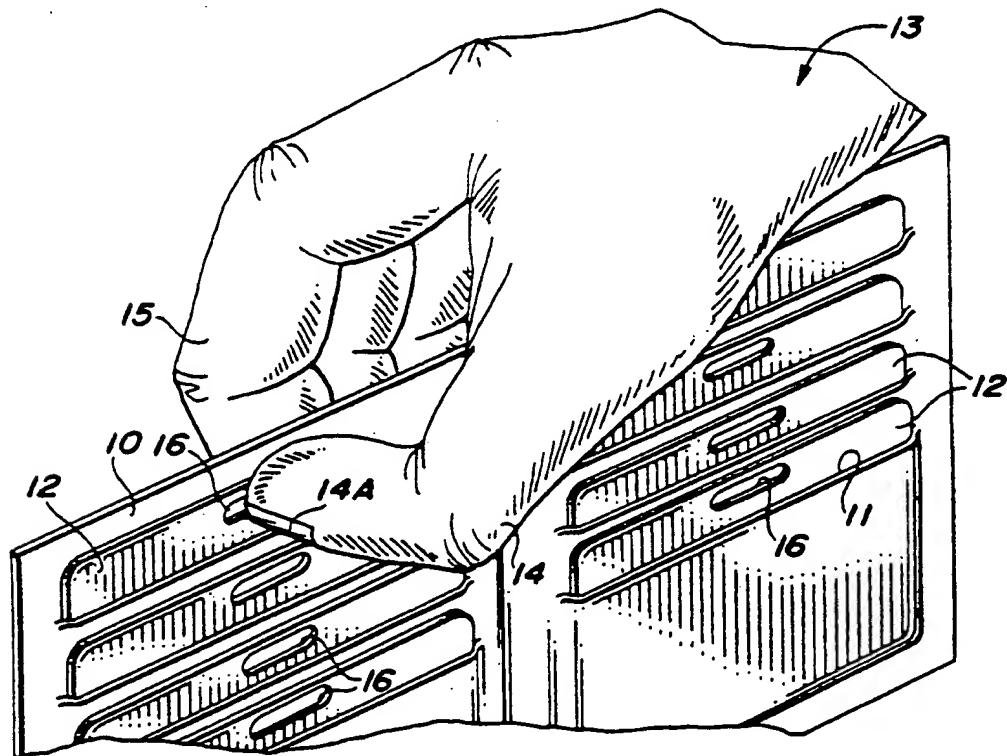
Assistant Examiner—Hwei-Siu Payer

Attorney, Agent, or Firm—James F. Duffy

[57] ABSTRACT

What has been disclosed herein represents an improvement in the existing system whereby identification cards are carried about the person in a manner in which, under the prior art, access to individual identification cards was difficult. The improvement comprises a non-slip finger engaging notch which permits the ready withdrawal of individual cards from card carrying cases without slippage between the fingers and the surface of the card.

6 Claims, 1 Drawing Sheet



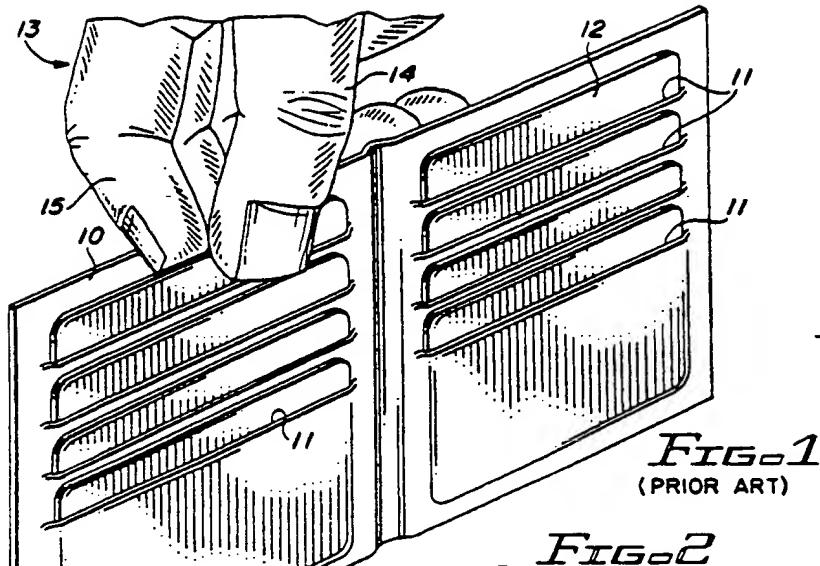
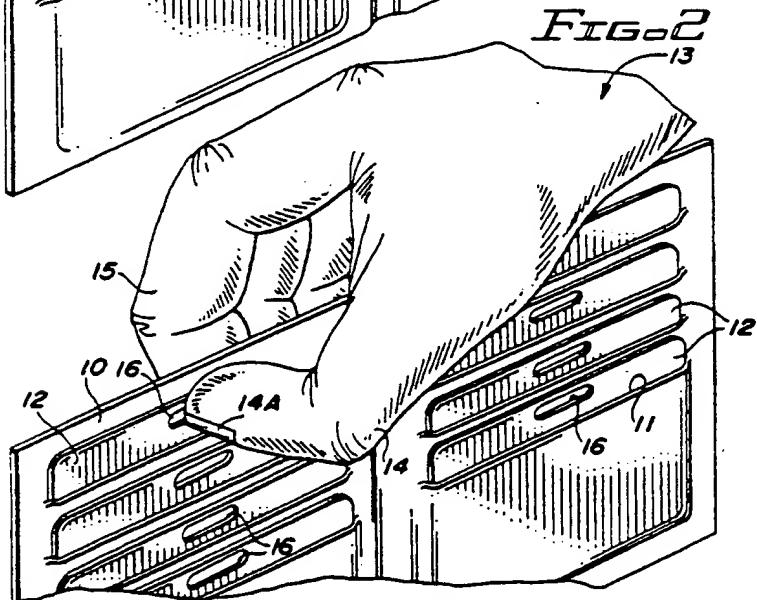
FIG. 1
(PRIOR ART)

FIG. 2

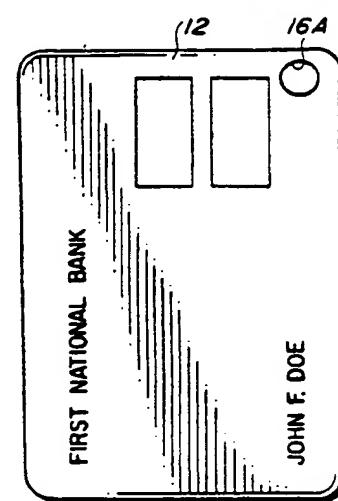


FIG. 5

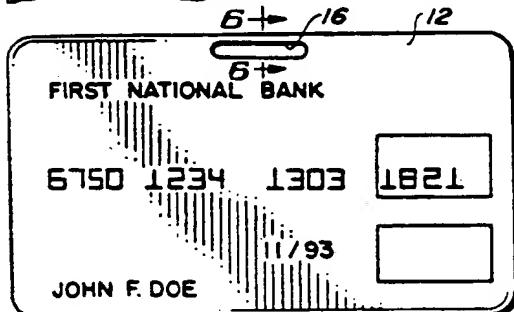


FIG. 3

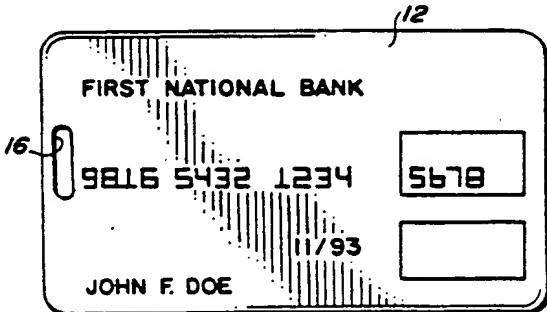


FIG. 4



FIG. 6

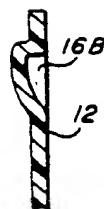


FIG. 7

NOTCHED I.D. CARD

BACKGROUND

1. Field of the Invention

The invention relates to the field of identification cards of the type including those cards which are generally known as credit cards. The invention particularly relates to means for easily removing an I.D. card from the pocket of a carrying case in a manner which overcomes finger slippage on the surface of such cards.

2. Prior Art

Much of our society revolves about the ability to identify oneself. Small, pocket sized plastic cards daily determine our access to goods and services. We use our plastic library identification card to withdraw books. We use our college identification card to confirm our entitlement for services within the college. We use our warehouse buyer's identification card to purchase goods at discounted prices. In making consumer purchases, credit cards have virtually replaced checks and even cash.

It is not unusual for a person to carry eight to ten identification cards within the pockets of their wallets or specialized carrying cases intended for the transport of such identification cards. Within these cases' wallet pockets the identification card is almost fully encompassed. Only a small portion along one edge of the card remains exposed when the card is emplaced within one of these pockets. To maintain the wallet or card case a reasonable size for carrying within pocket or purse, the pockets are placed closely adjacent to each other. As a result, when several such identification cards are stored within these pockets, the cards become difficult to remove. There is a little surface area to grasp on the card and the tightly packed mass is difficult for the fingers to grasp. The problem is compounded by the slick plastic surfaces of these cards; and the fingers tend to slip from the card when trying to withdraw a card from a pocket.

It is the intention of the invention disclosed herein to eliminate the difficulty experienced in attempting to remove an identification card from the pocket or such a wallet or carrying case.

SUMMARY OF THE INVENTION

The invention may be characterized in at least three ways. The first characterization would be that of an improvement to an identification system. That system includes a wallet carrying case for carrying a plurality of identification cards individually in pockets within the carrying case. The confinement of identification cards within these pockets makes it difficult to remove the cards from the case. The improvement which is intended for ease of removal of the cards from the case comprises an identification card which has non-slip engaging means on it so that a person may engage the card, easily removing the card from the carrying case. The non-slip engaging means may comprise a finger notch in the card to be engaged by a person removing the card from the pocket.

A second characterization of the invention might be summarized as an identification system. This system comprises a card carrying case which has pockets for holding identification cards. There is an identification card carried within one of the pockets and the card has non-slip withdrawal means. The non-slip withdrawal means is physically exposed when the identification card is carried within the pocket. As with the earlier

characterization, the non-slip withdrawal means may be readily engaged by a person seeking to remove the card from the pocket. Again, similar to the first characterization, the non-slip withdrawal means may comprise a finger notch in the card to be engaged by a person when removing the card from the pocket.

10 The third characterization of the invention considers the improved identification card itself. The improved card is a wallet-sized identification card and having non-slip engaging means which permit the card to be manipulated and grasped by a person without finger slippage on the card. Again, preferably, the non-slip engaging means comprises a finger notch in the card.

DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates the prior art wherein identification cards are stored within a carrying case and the card edge must be grasped by the fingers of the hand to remove it from the carrying case.

20 FIG. 2 is an illustration of the improvement of the invention wherein each identification card includes non-slip engaging or withdrawal means permitting the identification cards to be readily withdrawn from a pocket of the case without finger slippage on the surface of the card.

25 FIG. 3 illustrates the identification card as a credit card having a non-slip engaging or withdrawal means along a long side of said card.

30 FIG. 4 is similar to the illustration of FIG. 3 except that the engaging or withdrawal means is emplaced alongside the short edge of the card.

35 FIG. 5 illustrates non-slip engaging or withdrawal means having a different shape than those of FIGS. 3 and 4. FIG. 5 is a partial sectional view of an identification card taken through the non-slip engaging or withdrawal means.

40 In the illustration of FIG. 6, the non-slip means is represented as a bore through the identification card.

45 FIG. 7 is similar to the illustration of FIG. 6 except that the non-slip means is represented as an indented impression in the surface of the identification card, rather than as a bore.

DETAILED DESCRIPTION OF THE INVENTION

For purposes of promoting an understanding of the principles of the invention, reference will now be made to the embodiments illustrated in the drawings and specific language will be used to describe same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, there being contemplated such alterations and modifications of the illustrated device, and such further applications of the principles of the invention as disclosed herein, as would normally occur to one skilled in the art to which the invention pertains.

50 FIG. 1 illustrates the practice of the prior art of storing a multiplicity of identification cards 12 within pockets 11 of a card carrying case 10. Case 10 is generally a wallet-sized case for carrying in a person's pocket or purse. Cases, such as case 10 illustrated, are designed to provide a person with convention means for carrying the multiplicity of credit cards and identification cards of other types which are used by a person frequently throughout the week. To maintain a package size which fits within a pocket or purse, the case 10 is designed to contain a multiplicity of cards in a minimal

amount of space. In other words, the identification cards 12 are tightly packed when placed within the pockets 11 of case 10.

In attempting to remove a card 12, under prior art conditions illustrated in FIG. 1, a person places his hand 13 in the vicinity of the card to be removed from case 10. A person then attempts to inset finger 15 behind the exposed edge of card 12 so as to grasp the card between finger 15 and thumb 14. Conditions exist which tend to inhibit the easy removal of a card 12 from case 10 in this manner.

Because of the tight packing of cards 12 within case 10, it is often difficult to insert a finger behind the exposed edge of a card 12. Because of the tight packing of a multiplicity of cards 12 within case 10 (the cards 12 are tightly compressed within the confines of case 10 within the pockets 11) a relatively significant amount of force is required to withdraw a card 12 from pocket 11. Further, because most identification cards are plastic and have a smooth, slick surface, finger slippage is often experienced in attempting to overcome the force necessary to withdraw the card 12 from pocket 11.

It is often frustrating for a person standing in line at a checkout counter and attempting to remove a credit card 12 from case 10 to find his fingers 14 and 15 repeatedly slipping from the exposed edge of card 12 before successfully being able to remove a card 12 from pocket 11.

To overcome these difficulties, the invention provides a non-slip engaging means, alternatively referenced to as non-slip withdrawal means, whereby a person may apply pressure against the surface of card 12 in the direction intended to remove it from a pocket 11 and readily make the removal. Such an arrangement is illustrated in FIG. 2. Here the non-slip engaging or withdrawal means is illustrated as an oblong finger notch 16. When a person applies the thumb 14 of hand 13 to finger notch 16, the flesh of the thumb is compressed downward into the notch. A sliding pressure exerted upward, in the illustration of FIG. 2, causes card 12 to slide upwardly and out of pocket 11. Alternatively, a person may insert the tip of fingernail 14A into finger notch 16 and apply an upwardly directed pressure thereby removing card 12 from pocket 11. Because there is no slippage encountered between thumb 14 and card 12, card 12 is readily caused to move slidingly out of the pocket 11.

The non-slip engaging or withdrawal means 16 may be any means which allows the finger to be applied to the surface of the card 12 so as to prevent slippage of the finger on the surface of the card when attempting to overcome the compaction force retaining the card within a pocket 11. Thus, a region of the surface of card 12 might be treated so as to increase the coefficient of friction of the card's surface. Such treatment might be mechanical, as, for example, surface etching, or by chemical process to abrade the surface of the card. Thus, the use of a finger engaging notch as illustrated in the drawings is to be considered an exemplary embodiment and is not presented as a limitation on the invention.

In FIG. 3, a credit card, identification card, is illustrated. Again, this is by way of example and no limitation is implied as to the type of identification card utilizing the invention. In FIG. 3, the engaging withdrawal means 16 is presented as a finger notch along the upper edge of the card 12. In the illustration, this is one of the long edges of card 12. With the non-slip engaging or

withdrawal means 16 so positioned, the cards 12 present the appearance illustrated in FIG. 2, wherein case 10 has pockets designed such that a long edge of the identification card 12 remains exposed. Certain carrying cases, not illustrated, have pockets therein in which the narrow edge of the card 12 is exposed when emplaced in the pockets therein. To utilize the invention in this instance, the non-slip means 16 is emplaced within a short or narrow edge of the card, as illustrated in FIG. 4.

In FIG. 5, non-slip engaging means 16A is illustrated as a circular bore. This illustration is provided to emphasize the fact that the shape of the non-slip engaging or withdrawal means 16A is immaterial so long as it serves the purpose of eliminating slippage between the fingers attempting to remove the card and the surface of the card.

FIG. 6 is a side sectional view taken along the lines 6—6 of FIG. 3. In FIG. 6, the non-slip means 16 is illustrated as a through-bore in card 12. Again, this is by way of illustration and not of limitation.

FIG. 7 shows an alternate non-slip engaging or withdrawal means 16B which is an impression recessed within the surface of card 12, rather than a throughbore.

What has been disclosed herein represents an improvement in the existing system whereby identification cards are carried about the person in a manner in which, under the prior art, access to individual identification cards was difficult. The improvement comprises a non-slip finger engaging means which permits the ready withdrawal of individual cards from card carrying cases without slippage between the fingers and the surface of the card. For emphasis, it is again noted that the term "identification card," as used herein, is a generic descriptor which includes credit cards.

Those skilled in the art will conceive of other embodiments of the invention which may be drawn from the disclosure herein. To the extent that such other embodiments are so drawn, it is intended that they shall fall within the ambit of protection provided by the claims herein.

Having described the invention in the foregoing description and drawings in such a clear and concise manner that those skilled in the art may readily understand and practice the invention, that which is claimed is:

1. In a wallet carrying case in combination with a plurality of identification cards, said case having pockets for holding said cards, the improvement, for ease of removal of said cards from said case, comprising:

non-slip engaging means on each of said cards, whereby a person may engage said cards and easily remove said cards from said pockets in said carrying case.

2. The improvement of claim 1 wherein said non-slip engaging means comprises a finger notch in said card to be engaged by a person removing said card from a pocket in said case.

3. An identification system comprising:
a card carrying case having pockets;
an identification card carried within one of said pockets; and

non-slip withdrawal means on said identification card physically exposed when said identification card is carried in said pocket,
whereby said non-slip withdrawal means may be engaged by a person seeking to remove said card from said pocket.

4. The system of claim 3 wherein said non-slip withdrawal means comprises a finger notch in said card to be engaged by a person removing said card from said pocket.

5. An improved identification card carrying combination comprising:

an identification card carrying case having a pocket for carrying a wallet-size identification card;

a wallet-sized identification card carried in said pocket; and
a non-slip engaging means on said card;
whereby said card may be manipulated and grasped by
5 a person without finger slippage on said card as said card is removed from said pocket.

6. The identification card of claim 5 wherein said non-slip engaging means comprise a finger notch in said card.

* * * *